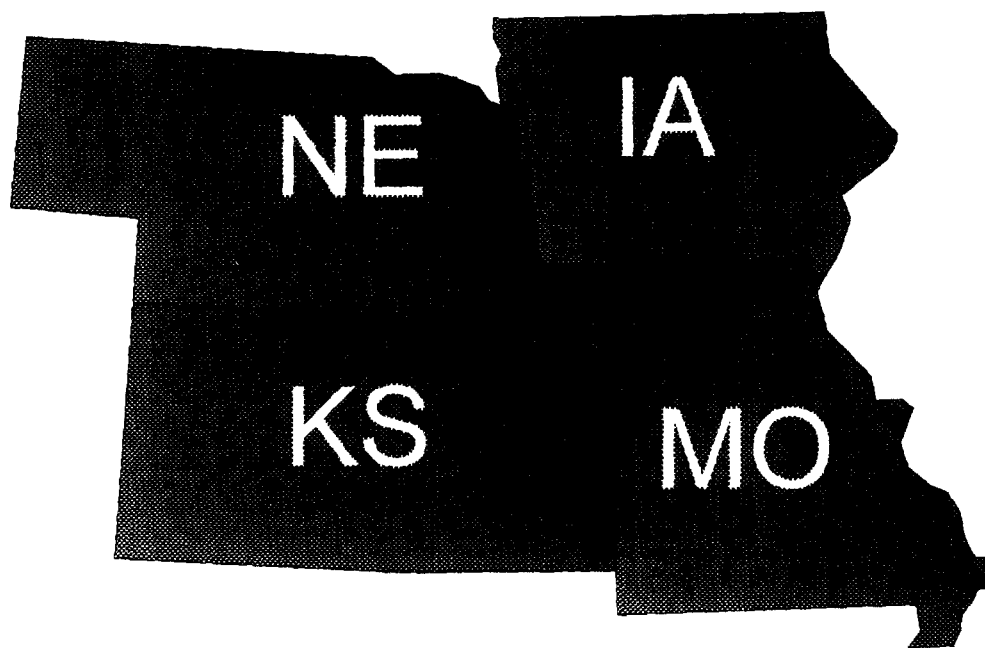


Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Dallas / Fort Worth, TX	Dallas North Tollway	Texas Turnpike Authority	I-35E to I-70	Overhead	Tag Based: Amtech	
Houston, TX					Tag Based: Amtech	Awaiting Survey Response
New Orleans, LA	Crescent City Connection	Louisiana Department of Transportation and Development	US 90	Roadside	Tag Based: Amtech	
New Orleans, LA	Lake Pontchartrain Causeway	Greater New Orleans Expressway Commission	Lake Pontchartrain Causeway	Roadside	Tag Based: Amtech	
Oklahoma City, OK	H.E. Bailey Turnpike	Oklahoma Turnpike Authority	US 62, SR 26, US 70	Overhead	Tag Based: Amtech	
Oklahoma City, OK	Kilpatrick Turnpike	Oklahoma Turnpike Authority	I-35	Overhead	Tag Based: Amtech	
Oklahoma City, OK	Turner Turnpike	Oklahoma Turnpike Authority		Overhead	Tag Based: Amtech	
Tulsa, OK	Creek Turnpike	Oklahoma Turnpike Authority	US 75 to US 64	Overhead	Tag Based: Amtech	
Tulsa, OK	Muskogee Turnpike	Oklahoma Turnpike Authority	SR 51 to SR 165	Overhead	Tag Based: Amtech	
Tulsa, OK	Will Rogers Turnpike	Oklahoma Turnpike Authority	Tulsa to Missouri State Line	Overhead	Tag Based: Amtech	



Region 7

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software				System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	
Kansas City, MO	City of Lenexa, KS	25	X		X								X			X							X		X		X	Translink
Kansas City, MO	City of Overland Park, KS	94			X							X				X							X		X		X	WAPIT/D.M.
Omaha, NE	City of Omaha	500			X						X					X							X	X	X		X	WAPIT/D.M., Radar

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
St. Louis, MO	MHTD Traffic Center	Missouri Highway and Transp. Dept	I-64/US 40, I-270, I-70, I-44, I-55, I-170 134 Miles Total	None		X		X		X	X	X		X		X	X	Video Imaging Detectors. Center expected to be completed in 1997

Table 3 - Advanced Public Transportation Systems

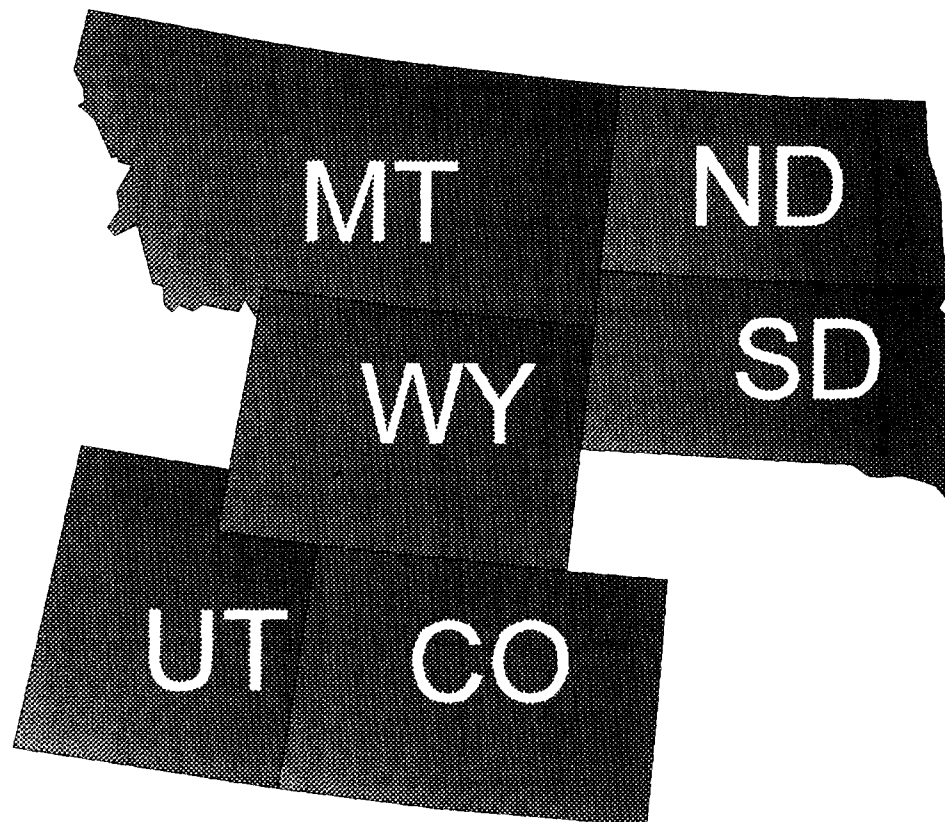
Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Kansas City, MO	Kansas City Area Transit Authority	250	X		X			X							No	Silent Alarm System. Kiosks and Passenger Information Systems in design phase.

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Kansas City, MO	Kansas City Regional Incident Management Coalition	I-70, I-35, I-435, US 71	City of Independence MO, Kansas State Police, Missouri Highway Patrol, City of Kansas City KS, City of Kansas City MO, Kansas DOT, Missouri Highway and Transportation Department	
St. Louis, MO	St. Louis Regional Incident Management Coalition	I-55, I-270, I-70, I-170, I-64/US 40, I-44	St. Louis County Police Dept., St. Louis County Dept. Of Highways and Traffic, FHWA - Illinois Division, Auto Club of Missouri, FHWA - Missouri Division, Kirkwood Fire Dept., City of St. Louis, Illinois DOT - District 8, Missouri Highway and Transportation Dept.	Will utilize technologies of the MHTD Traffic Center

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Kansas City, MO	Kansas Turnpike	Kansas Turnpike Authority	14.9 Miles from Bonner Springs, KS to Kansas City, KS	Overhead	Tag Based	42,000 to 43,000 in-vehicle transponders in operation on entire turnpike
Wichita, KS	Kansas Turnpike	Kansas Turnpike Authority	I-35, I-135, I-335, I-470, I-70 total of 237.5 miles	Overhead	Tag Based	



Region 8

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software				System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	
Denver, CO	City of Denver																											Awaiting Survey Response
Denver, CO	City of Aurora	105			X							X				X							X	X	X	X		
Denver, CO	City of Lakewood	200			X							X				X							X	X	X	X	X	
Salt Lake City, UT	Salt Lake City Transportation Division	220			X							X				X						X			X			
Salt Lake City, UT	Salt Lake County																											Awaiting Survey Response

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Denver, CO	Colorado TOC	CO DOT, CSP, CO Office of Emergency Mgt.	25 Miles	Yes		X	X	X		X	X	X		X	X	X	X	Video Imaging Detectors, Surveillance Aircraft, Telepone Information Number

Table 3 - Advanced Public Transportation Systems

Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Oper. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Denver, CO	Regional Transportation District	900	X		X	X	X	X	X						No	Silent Alarm System, Electronic Fare under design

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Denver, CO	Incident Management Program	7 Miles of North I-25		

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Denver, CO	E-470	E-470 Public Highway Authority	5.2 miles of E-470	Overhead	Tag Based	



Region 9

Table 1 - Traffic Signal Control Systems

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff. Responsive	Vehicle Preemption	
Fresno, CA	Caltrans District 6	50			X	X					X	X				X						X		X	X	X	Magnetic Probes QUICNET		
Honolulu, HI	City & County of Honolulu	300	X		X						X	X	X	X		X						X	X	X		X	Bitrans, Microwave Radio		
Las Vegas, NV	LVACTS, City of Las Vegas, City of North Las Vegas, Clark County	472			X						X				X						X			X		X			
Los Angeles, Anaheim, Riverside, CA	City of Anaheim	212	X		X	X						X		X		X	X				X		X	X			SCOOT sytem in Design phase		
Los Angeles, Anaheim, Riverside, CA	City of Santa Ana	250			X							X	X			X						X	X	X	X	X	VMS 330		
Los Angeles, Anaheim, Riverside, CA	City of Irvine	220	X		X							X	X	X		X						X	X	X	X		VMS		

Metropolitan Area	Jurisdiction	# of Centrally Controlled Signals	Traffic Information Collection										Means of Comm.				Means of Control			System Software					System Operation				General Comments
			CCTV	Call Boxes	Inductive Loops	Video Detection	Aircraft	Service Patrols	Cell-Phone	Vehicle Probes	CB Radio	Other	Coaxial Cable	Fiber Optic	Microwave	Other	NEMA	170	Other	ATC	SCOOT	SCATS	UTCS	Other	Special Events	Time of Day	Traff Responsive	Vehicle Preemption	
Sacramento, CA	Traffic Operations Center	250															X	X						X		X		X	JHK Series 200
San Diego, CA	City of San Diego	450			X								X	X	X			X			X			X		X	X		QUICNET
San Diego, CA	City of La Mesa	24			X									X				X	X				X		X	X	X	X	
San Francisco, Oakland, San Jose, CA	City of San Jose	540	X		X								X	X			X							X	X	X		X	JHK Series 2000
San Francisco, Oakland, San Jose, CA	Santa Clara County	155			X	X						X	X				X								X	X	X	X	
Tucson, AZ	Tucson Traffic Signal Control Center	320			X								X				X	X					X		X	X			

Table 2 - Freeway Management Systems

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Fresno, CA	Central Valley Transportation Management Center	Caltrans, California Highway Patrol	I-5, SR 99	Yes	X	X	X	X		X				X		X		
Honolulu, HI	FMC		H-1, H-2, H-3															In Design Phase
Las Vegas, NV	McCarran Freeway Management System	Clark Coutny Department of Aviation	Airport tunnel connector and I-215	None		X	X	X		X				X		X		Lane Use Signals, Telephone Information Number
Los Angeles, Anaheim, Riverside, CA	Los Angeles Transportation Management Center	Caltrans District 7, California Highway Patrol		Yes	X	X	X	X						X	X	X	X	Internet Home Page, Telephone Info Number, Traffic Vision
Los Angeles, Anaheim, Riverside, CA	Orange County Transportation Management Center	Caltrans District 12, California Highway Patrol	I-5, I-405, SR 55, SR 73, R 22, SR 57, SR 91	Yes	X	X	X	X	X	X	X			X	X	X	X	Information Kiosks

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
Los Angeles, Anaheim, Riverside, CA	San Bernadino Traffic Management Center																	Awaiting Survey Response
Phoenix, AZ	Phoenix Traffic Operations Center	Arizona DOT	I-10, I-17, SR 51, SR 143, Loop 202	Yes	X		X	X			X	X				X	X	Passive Acoustic Detectors, Kiosks, Internet home Page, Telephone Info Number
Sacramento, CA	CHP/Caltrans Transportation Management Center	California Highway Patrol, Caltrans	SR 99, I-80, I-80 Business, SR 50	Yes	X	X	X	X			X						X	FAX Service to Media
San Diego, CA	San Diego Transportation Management Center	California Highway Patrol, Caltrans	I-5, I-8, I-805, US-94, SR-52, SR-163	Yes	X	X	X			X	X	X		X	X	X	X	Internet Home Page, Surveillance Aircraft, Telephone Info Number
San Francisco, Oakland, San Jose, CA	Coastal Region Transportation Management Center	Caltrans District 4, California Highway patrol, Metropolitan Transportation Commission	Coastal areas from Santa Barbara north to Oregon	Yes	X	X	X	X			X			X		X	X	Telephone Information Number

Metropolitan Area	Operation Name	Operator	Coverage Area	Ramp Metering	Traffic Detection & Verification								Motorist Information					General Comments
					Operation Center	Service Patrols	Inductive Loops	CCTV	CB-Radio	Cell-Phone	Call Boxes	Other	Alt. Routes	HAR	Media	VMS	Other	
San Francisco, Oakland, San Jose, CA	Vallejo Interim Transportation Management Center	CA DOT		Yes			X	X						X		X		

Table 3 - Advanced Public Transportation Systems

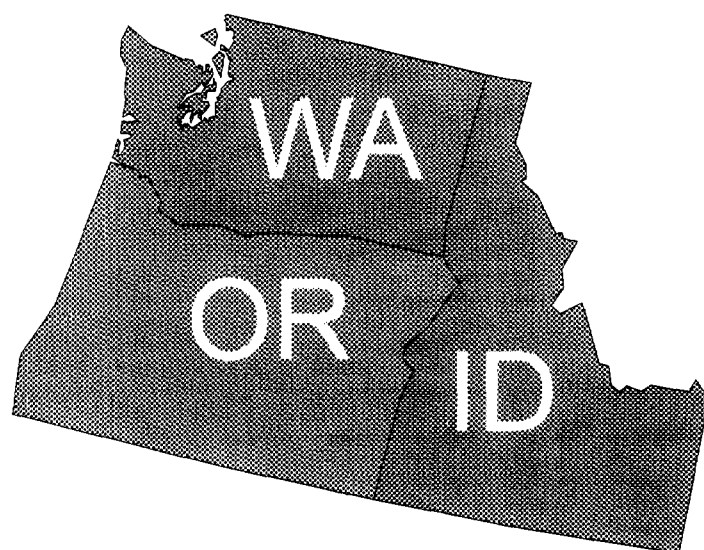
Metropolitan Area	Transit Operator	# of Buses w/ ITS Tech.	Transit Vehicle Technology						Traveler Services						Rail System	General Comments
			AVL	On Board Display	2 Way Data Comm.	Transit Opers. Software	Automated Disp.	Other	Passenger Info Sys.	Ride Share Info.	Reservation & Billing Sys.	Integrated Fare Media	Electronic Payment	Other		
Los Angeles, Anaheim, Riverside, CA	Los Angeles MTA	2085	X		X		X	X								Silent Alarm System
Los Angeles, Anaheim, Riverside, CA	City of Santa Monica	135	X													
Los Angeles, Anaheim, Riverside, CA	Transit Probe	500														AVL, Operators Software in design phase
Phoenix, AZ	Valley Metro	450				X		X					X			Automatic Enunciation System
San Francisco, Oakland, San Jose, CA	Alameda - Contra Costa Transit District	702														RFP was due to be released October 1995
San Francisco, Oakland, San Jose, CA	Bay Area Rapid Transit (BART)	45													Yes	Magnetic stripe stored value tickets

Table 4 - Incident Management Programs

Metropolitan Area	Operation Name	Coverage Area	Participating Organizations	General Comments
Los Angeles, Anaheim, Riverside, CA	APID	All Routes in Orange County	Fire Department, Irvine TMC, Santa Ana TMC, Anaheim TMC, California Highway Patrol, Caltrans	
Phoenix, AZ	Incident Command	All of Maricopa County and part of Pinal County	Local Fire Departments, Department of Public Safety, Arizona Department of Transportation	
Sacramento, CA	Incident Management Program	I-5, I-80, SR 16, SR 51, SR 84, SR 99, SR 275, SR 244, US 50, I-80 Business, SR 50	Sacramento Area of Governments, Local Police Departments, Caltrans, County Sheriff Departments, California Highway Patrol	
San Diego, CA	San Diego Transportation Management Center	I-5, I-8, I-15, I-805, US94, SR52, SR163		
San Francisco, Oakland, San Jose, CA	Bay Area Transportation Management Program	550 Miles of Freeway, 1400 Miles of Highways	California Highway Patrol	
San Francisco, Oakland, San Jose, CA	Silicon Valley Smart Corridor	Thirteen mile section along Route 17/I-880	Metropolitan Transportation Commission, Santa Clara Valley Transportation Authority, California Highway Patrol, Town of Los Gatos, City of Santa Clara, City of Milpitas, City of Campbell, Caltrans - District 4, County of Santa Clara, City of San Jose	

Table 5 - Electronic Toll Collection Systems

Metropolitan Area	Operation Name	Participating Organizations	Coverage Area	Antennae Location	In-Vehicle Equipment	General Comments
Los Angeles, Anaheim, Riverside, CA	Vincent Thomas Bridge	Caltrans	SR-47	Overhead	Tag Based: MFS Network Tech /T	
San Diego, CA	San Diego - Coronado Bridge (SR-75)	Caltrans	San Diego - Coronado Bridge (SR-75)	Overhead	Tag Based MFS Network Tech/T	
San Francisco, Oakland, San Jose, CA	Antioch Bridge	Caltrans	Antioch Bridge (SR-4)	Overhead	Tag Based MFS Network Tech/T	operational by August 1997
San Francisco, Oakland, San Jose, CA	Carquinez Bridge	Caltrans	Carquinez Bridge (I-80)	Overhead	Tag Based: MFS network Tech/T	Operational by August 1996
San Francisco, Oakland, San Jose, CA	Dumbarton Bridge	Caltrans	Dumbarton Bridge (SR-84)	Overhead	Tag Based: MFS network Tech/T	Operational by August 1997
San Francisco, Oakland, San Jose, CA	Martinez - Benicia Bridge	Caltrans	Martinez - Benicia Bridge (I-680)	Overhead	Tag Based: MFS network Tech/T	Operational by August 1997
San Francisco, Oakland, San Jose, CA	Oakland Bay Bridge		I-80	Overhead	Tag Based: MFS network Tech/ TI	Operational by August 1997
San Francisco, Oakland, San Jose, CA	Richmond- San Rafael Bridge		I-580	Overhead	Tag Based: MFS network Tech/ TI	Operational by August 1997
San Francisco, Oakland, San Jose, CA	San Mateo - Hayward Bridge		SR-93	Overhead	Tag Based: MFS network Tech/TI	Operational by August 1997



Region 10